

REMARKS

Claims 10-17 and 19-23 are pending. Claim 22 finds support at page 3, lines 13-19, of the specification. Claim 23 finds support at page 13, lines 11-20 of the specification.

Claim 11 apparently stands rejected under 35 U.S.C. 112, first paragraph. Applicants respectfully traverse this rejection. The formula in claim 11 finds support in the specification in Formula (I) (page 3, line 25) wherein $J=J_1$ (page 4, line 3) (please note that the phenyl group in J_1 clearly has H in the 4-position). J_1 is mentioned as a preferred embodiment at page 7, lines 36-37. The formula in claim 11 finds further support at page 9, line 31, to page 12, line 43 (please note that all of the compounds listed in the table contain H in the 4-position of the phenyl group).

Claims 10-17 and 19-21 stand rejected under 35 U.S.C. 101 over U.S. 6,482,772. That patent has been disclaimed. Furthermore, present claims 11 and 19-23 are not identical to any claim in that patent.

Claims 10-17 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Garst et al. (US 5,550,115). Applicants note that US 5,550,115 is apparently equivalent to WO 95/28410 which was the basis of a previous rejection which has been overcome. Applicants direct the Examiner's attention to the Appeal Brief filed December 1, 2003 for their arguments pertaining to this reference. Reinstatement of this rejection is inappropriate at this stage. Should the Examiner maintain this rejection, applicants would request reinstatement of their appeal.

In any event, Garst et al. is concerned with the performance of the surfactant, i.e. on the one hand, said document deals with the task of an agricultural chemical formulation comprising an agricultural active ingredient and an alkylpolyglycoside as surfactant and on the other hand said document deals with the emulsifying properties of the surfactant when the agricultural formulation is mixed with water (see column 1, lines 47-57). This document does not address

the problem of decomposition of an agricultural active ingredient, much less the problem of sulfonylurea decomposition in said formulations.

In order to solve the problem overcome by the present invention, a skilled person would have had to find out which of a large number of adjuvants disclosed in the art (see introductory part of the specification) fulfill the above-mentioned requirements. This would have required performing a large number of extensive and complex investigations which are beyond routine experiments. Therefore, the increased stability of sulfonylureas when formulated with alkylpolyglycosides, was not predictable from the prior art. The unexpected results of the present invention are further discussed in the aforementioned Appeal Brief. As a consequence, the claimed subject matter would not have been obvious in view of Garst et al.

The data in the present specification clearly demonstrate that irrespective of the active ingredient concentration, high stability levels for sulfonylureas are achieved when using alkylpolyglycosides while the stability levels for sulfonylureas in solid formulations is poor when using other surfactants. As a matter of fact, the best result for the comparative is 48% relative level after 14 d at 54°C (comparison example C4), while the orst result of an inventive composition is 62% (examples 11 and 15 which are an exact side-by-side comparison).

Claims 10-17 and 19-21 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Malik et al (US H224) and DuPont (Escort, Oust, Telar Product Information Bulletin). Applicants respectfully traverse this rejection.

Malik et al. discloses a composition comprising a herbicide and a glycoside dispersing agent. Although said document lists many suitable herbicides in column 4, lines 18-65, said document does not mention any sulfonylurea as active ingredient. Therefore, said document

does not disclose the combination of sulfonylureas and alkylpolyglycosides in solid formulations.

Malik et al. addresses the emulsifying and dispersing capabilities of the dispersing agent, i.e. low volatility and high resistance to being removed by rain from the surface of a growing plant (see column 1, lines 54-65). This reference does not give any hint that glycoside dispersing agents are suitable to stabilize labile active ingredients in solid formulations. Malik et al. further fails to address the problem of sulfonylurea decomposition in solid formulations. Therefore, a person having ordinary skill in the art would not have expected that alkylpolyglycosides are useful for both enhancing the activity of sulfonylureas and increasing their stability in solid formulations. As a consequence, the claimed subject matter is not rendered obvious by Malik et al.

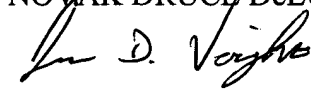
The Dupont Product Information Bulletin refers to formulations comprising Escort, Oust and Telar, respectively, in the form of dispersible granules. Said document is silent on the surfactant used.

The Dupont document teaches that Escort, Oust and Telar, respectively, are prone to undergo hydrolysis (see first paragraph on page 2) and that the half-life decreases rapidly as the temperature increases from 45 to 95°F (corresponding to 7.2 to 35°C) – see paragraph below the "Hydrolysis Half-Life Table" on page 2. It is well known that the dependence of the reaction rate on the temperature is given by the Van't Hoff law. As a rule of thumb (which can be estimated by the Van't Hoff law) an increase in temperature of 10K results approximately in a doubling to quadrupling of the reaction rate. From Dupont we learn that at pH 5 and 25°C, Escort has a hydrolysis half-life of 21 days, Oust has one of 14 days and Telar has one of 23 days. Since an increase in temperature of approximately 30K should result in an increase of the

decomposition rate about 8 to 64 times ($= 2^3$ to 4^3), Escort should have a hydrolysis half-life of not more than 2.6 days, Oust should have one of not more than 1.75 days and Telar should have one of not more than 2.88 days at 55°C and pH 5. As a consequence, the solid sulfonylurea formulations of Dupont have only a low hydrolysis half-life at higher temperatures, e.g. at 55°C and after 14 days the sulfonylureas are decomposed to a great extent. Thus, Dupont confirms the instability of sulfonylureas in solid formulations and fails to teach how to overcome this problem.

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